

SCA API Supplement v1.1 v2002-12-04

API Tag	Requirement text	Section Number	Verification Method	Requirement Type	Change Status
API1	All SCA-compliant APIs shall have their interfaces described in IDL.	API 4.2	Inspection/ Analysis	Shall	
API2	To further these ends, one of the following methods for creating APIs shall be used.	API 4.2.1	Inspection/ Analysis	Shall	
API3	For these identified methods, the order of preference shall flow from Item A to Item D.	API 4.2.1	Inspection/ Analysis	Shall	
API4	The standard transfer mechanism shall be CORBA except as allowed in 4.2.2.2.	API 4.2.2.1	Inspection/ Analysis	Shall	
API5	When an alternate transfer mechanism is used for real-time control and data flow, the transfer mechanism for initialization and non-real-time control shall use the standard transfer mechanism (if those controls can be separated).	API 4.2.2.2	Inspection/ Analysis	Shall	
API6	When an alternate transfer mechanism is used, the transfer and message syntax of the alternate transfer mechanism shall be mapped to the IDL of the API Service Definition.	API 4.2.2.2	Inspection/ Analysis	Shall	
API7	This mapping shall be identified by a UUID (separate from the Service Definition UUID).	API 4.2.2.2	Inspection/ Analysis	Shall	
API8	The description of the alternate transfer mechanism, an analysis supporting the performance need for the alternate mechanism, the mappings to the Service Definition, and the associated UUIDs shall be registered as defined in section 4.3.3.	API 4.2.2.2	Inspection/ Analysis	Shall	

SCA API Supplement v1.1 v2002-12-04

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API9	Irrespective of the transfer mechanism used, all behavior including state transitions and priorities defined in the service definition shall be obeyed by an API Instance.	API 4.2.2.2.1	Inspection/ Analysis	Shall	
API10	Transfer mechanisms shall be in accordance with commercial or government standards.	API 4.2.2.2.2	Inspection/ Analysis	Shall	
API11	Non-JTRS APIs that do not have IDL interfaces shall have a mapping to an IDL interface in a Service Definition as shown in Figure 4 2.	API 4.3.1	Inspection/ Analysis	Shall	
API12	SCA-compliant APIs shall be defined in Service Definitions conforming to the Service Definition Description (SDD) provided in Appendix A, except as allowed in 4.3.1.	API 4.3.2	Inspection/ Analysis	Shall	
API13	SCA-compliant Service Definitions shall conform to the Service Definition Description (SDD) provided in Appendix A, except as allowed in 4.3.1.	API 4.3.2	Inspection/ Analysis	Shall	
API14	Service Definition documentation of SCA-compliant APIs shall be submitted to a Registration Body to be established, initially, by the JTRS JPO.	API 4.3.3	Inspection/ Analysis	Shall	
API15	Each Service Definition shall be identified by a Universally Unique Identifier (UUID).	API 4.3.3	Inspection/ Analysis	Shall	
API16	The format of a Service Definition shall follow the structure of the following sections.	API A.2.1	Inspection/ Analysis	Shall	

SCA API Supplement v1.1 v2002-12-04

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API17	The third level of heading in this document shall be the first level of heading for a Service Definition.	API A.2.1	Inspection/ Analysis	Shall	
API18	Each Service Definition shall contain a cover page and a table of contents.	API A.2.1	Inspection/ Analysis	Shall	
API19	At a minimum, the cover page shall include a title, UUID, version number, and point of contact (name, organization, and address).	API A.2.1	Inspection/ Analysis	Shall	
API20	API documentation contains an Introduction section	API A.2.2	Inspection/ Analysis	Implied	
API21	Included in this overview shall be a list of supported protocols, algorithms, and waveforms.	API A.2.2	Inspection/ Analysis	Shall	
API22	The role of the service layer shall be described here in high level terms.	API A.2.1.2	Inspection/ Analysis	Shall	
API23	This section shall identify the different modes of the service, if any.	API A.2.2.1.3	Inspection/ Analysis	Shall	
API24	Included with the identified modes shall be a description of use.	API A.2.2.1.3	Inspection/ Analysis	Shall	
API25	This section shall identify the states for the services, if applicable.	API A.2.2.1.4	Inspection/ Analysis	Shall	
API26	Documents referenced by a Service Definition shall be listed here.	API A.2.2.1.5	Inspection/ Analysis	Shall	
API27	This section shall provide a UUID for APIs only.	API A.2.2.2	Inspection/ Analysis	Shall	

SCA API Supplement v1.1 v2002-12-04

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API28	This section shall provide a brief overview of services and a table of service groups, services, and the primitives that support those services.	API A.2.2.3	Inspection/ Analysis	Shall	
API29	This section shall identify a service group or service and provide a description of the service.	API A.2.2.3.x	Inspection/ Analysis	Shall	
API30	If the service can be more clearly specified by further dividing into sub-services, the sub-services shall be specified in sub-paragraphs.	API A.2.2.3.x	Inspection/ Analysis	Shall	
API31	Each identified service shall be accompanied by a brief explanation.	API A.2.2.3.x	Inspection/ Analysis	Shall	
API32	A time sequence diagram shall accompany the lowest level of service identified when applicable	API A.2.2.3.x	Inspection/ Analysis	Shall	
API33	Service Primitives or Attributes shall be defined.	API A.2.2.4	Inspection/ Analysis	Shall	
API34	The primitives or attributes shall be grouped according to the services defined in section A.2.2.3.x.	API A.2.2.4.x	Inspection/ Analysis	Shall	
API35	Inheritance relationships from Service Definitions not defined in this document shall be described and should be shown in the UML class diagrams.	API A.2.2.4.x	Inspection/ Analysis	Shall	
API36	Each primitive shall start a new page in the Service Definition.	API A.2.2.4.x	Inspection/ Analysis	Shall	
API37	The implied get and set operations for attributes shall be explicitly defined as primitives.	API A.2.2.4.x	Inspection/ Analysis	Shall	

SCA API Supplement v1.1 v2002-12-04

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API38	This section shall contain a brief description of the primitive or attribute.	API A.2.2.4.x.y	Inspection/ Analysis	Shall	
API39	This section shall contain the syntax of the primitive or attribute in IDL format.	API A.2.2.4.x.y.1	Inspection/ Analysis	Shall	
API40	This section shall identify and describe the parameters for the primitive.	API A.2.2.4.x.y.2	Inspection/ Analysis	Shall	
API41	If a structure or structures are part of the parameter set, then each field shall be enumerated and described.	API A.2.2.4.x.y.2	Inspection/ Analysis	Conditional	
API42	This section shall identify the state(s) for which the primitive is valid.	API A.2.2.4.x.y.3	Inspection/ Analysis	Shall	
API43	This section shall identify the new state that results from the execution of the primitive, if any.	API A.2.2.4.x.y.4	Inspection/ Analysis	Shall	
API44	This section shall identify the response primitive, if any.	API A.2.2.4.x.y.5	Inspection/ Analysis	Shall	
API45	This section shall identify the originator of the primitive, the Service User or the Service Provider.	API A.2.2.4.x.y.6	Inspection/ Analysis	Shall	
API46	Any errors or exceptions that can occur as a result of the execution of the primitive shall be identified and described.	API A.2.2.4.x.y.7	Inspection/ Analysis	Shall	
API47	This section shall describe the allowable sequence of service primitives that may be issued across the interface.	API A.2.2.5	Inspection/ Analysis	Shall	
API48	The following state information shall be supplied: state name, transition primitive, expected outputs, and exceptions.	API A.2.2.5	Inspection/ Analysis	Shall	

SCA API Supplement v1.1 v2002-12-04

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API49	If there are no defined sequences of primitives, this section shall so state.	API A.2.2.5	Inspection/ Analysis	Shall	
API50	This section shall present a summary of the precedence of service primitives as they are queued by the Service Provider and/or Service User.	API A.2.2.6	Inspection/ Analysis	Shall	
API51	The precedence shall be expressed in tabular form.	API A.2.2.6	Inspection/ Analysis	Shall	
API52	If there is no precedence of primitives, this section shall so state.	API A.2.2.6	Inspection/ Analysis	Shall	
API53	This section shall summarize the guidelines for implementing a Service User that will be independent of the implementation of the Service Provider.	API A.2.2.7	Inspection/ Analysis	Shall	
API54	This section shall identify the information to be documented for each service provider implementation.	API A.2.2.8	Inspection/ Analysis	Shall	
API55	This section shall include the complete IDL listing for the Service Definition.	API A.2.2.9	Inspection/ Analysis	Shall	
API56	New IDL shall be differentiated from the inherited IDL in some fashion (e.g., different font).	API A.2.2.9	Inspection/ Analysis	Shall	
API57	This section, if provided, shall include the UML diagrams for the Service Definition.	API A.2.2.10	Inspection/ Analysis	Conditional	
API58	The Packet BB and Signal BB or Simple Packet BB shall be used by all APIs to 'push' data between software components (e.g., Physical, LLC, MAC and I/O).	API C.1.2	Inspection/ Analysis	Shall	

SCA API Supplement v1.1 v2002-12-04

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API59	Note: The instantiating API shall only use one format of pushPacket (with flow control & QOS or without flow control & QOS).	API C.3	Inspection/ Analysis	Shall	
API60	(Epoch method shall be defined by instantiating API.)	API C.4.5.1.1	Inspection/ Analysis	Shall	
API61	This appendix shall summarize the guidelines for implementing a Service User that will be independent of the implementation of the Service Provider.	API E.8	Inspection/ Analysis	Shall	
API62	This appendix shall identify the information to be documented for each service provider implementation.	API E.9	Inspection/ Analysis	Shall	
API63	This appendix, if provided, shall include the UML class and component diagrams for the Service Definition.	API E.11	Inspection/ Analysis	Conditional	
API64	All I/O APIs shall use the I/O API building blocks.	API H.1.2	Inspection/ Analysis	Shall	
API65	This appendix shall identify the information to be documented for each service provider implementation.	API H.9	Inspection/ Analysis	Shall	
API66	Wording within <> represents information that shall be supplied by the developer.	API A.2	Inspection/ Analysis	Shall	

SCA API Supplement v1.1 v2002-12-04

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Summary of Analysis					
	Not Testable		0		
	Inspection/Analy		66		
	Demonstration		0		
	Test		0		
	Witness		0		
	Total Verificatiion Method		66		
	Total Blank		0		
	Shall			62	
	Conditional			3	
	Implied			1	
	Total Requirement Type			66	
	Total Blank			0	